

Valley Radio Club of Oregon
Eugene, Oregon
W7PXL

RFI Group

Radio Frequency Interference:

**An Informational Handout
provided by:**

**The Valley Radio Club
of Oregon**

**for sellers of
Electronic Lighting Equipment**

Version 1.6

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What is RFI?

RFI stands for Radio Frequency Interference. Radio Frequency interference is anything which causes interference to any Federally licensed radio operation(s) within the United States of America or its possessions. Radio Frequency Interference is often called RFI by those in the business of communications, and it causes many types of problems, such as:

- **Interference to stereo (static)**
- **Interference to operational Federally licensed radio stations**
- **Static on AM, FM radios, or TV**

Why is RFI bad?

RFI negatively impacts radio communications as well as potentially degrading the proper operation of consumer electronics. RFI sources can and do interfere with the efficient use of many areas of the radio spectrum. In some cases, this can cause simple problems such as interference with your favorite TV program to degrading critical communication infrastructure used to protect life and property. The Federal Communications Commission is tasked with the responsibility of keeping the radio frequency spectrum used within the United States useful to the entities it licenses. Some of those entities are:

- **Police/Fire**
- **Amateur Radio**
- **Radio Broadcasting**

Why am I getting this handout?

You are receiving this handout because you may be selling a device which can in some circumstances emit Radio Frequency Interference which may cause harmful interference to at least one of the following communications systems/stations:

- **Police Communications**
- **Fire Communications**
- **Power Companies**
- **Amateur Radio**
- **Broadcast TV**
- **Broadcast Radio**
- **Cellular Phone**
- **Cable TV**
- **Cable Internet**
- **DSL Internet**
- **Wireless Internet**
- **In Home Wireless Telephones**

This handout is part of a program sponsored by the Valley Radio Club to attempt to solved these sorts of problems at a local level in order to avoid possible Federal enforcement action(s).

What causes RFI?

RFI can be generated from numerous sources. They can include:

- **Poorly designed or manufactured consumer electronics which may be in violation of Federal Communications Commission part 15 rules and regulations.**
- **Plasma TV's**
- **Lighting and Lamp Dimmers**
- **Electric Motors**
- **Indoor Grow Lighting Systems**
- **Aquarium Heaters**
- **Door Bell Transformers**
- **Older Compact Fluorescent Lamps**
- **Floor Heaters**
- **Neon Signs**
- **Electric Fences**
- **Power Tools**

RFI TIP:

RFI can be dangerous: Something shorting out can generate RFI and it can also start a fire!

Who is responsible for enforcement actions relating to RFI?

The Federal Communications Commission (FCC) licenses radio transmission and reception stations in the United States. As part of that responsibility, the FCC is the regulatory agency charged with maintaining the licensed radio frequencies to be free of harmful interference, (RFI).

Such licensed frequencies include those used by fire, police, cellular phone services, cable TV and amateur radio, as well as commercial radio and television broadcasting.

Ultimately, it is the Federal Communications Commission's responsibility to take enforcement actions against those generating RFI that negatively impacts the authorized users of licensed radio frequencies.

More information about the Federal Communications Commission and their role in addressing RFI issues can be found at the following links:

<http://transitionalness/gb/consumerfacts/interference.pdf>

http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-11-250A1.pdf

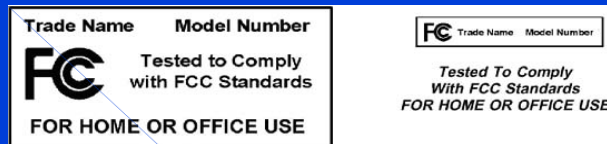
The Valley Radio Club, (VRC), is not an RFI regulatory body nor associated with any governmental or utility agency.

The Valley Radio Club, (VRC), believes that identifying and correcting RFI issues in a non-confrontational manner, at the local level, is the best approach for all concerned. The VRC further believes it can offer an effective local approach to addressing RFI issues in the Eugene-Springfield community before they are escalated to the level of the Federal Communications Commission for enforcement actions.

How can I tell if I am selling RFI generating devices?

Without having every item tested you can not be sure. You should look for the Part 15/18, FCC sticker on EACH device you sell in order to increase your chances of being compliant. While this does not guarantee the device is RFI compliant, it does indicate the FCC may have looked at this device.

What might an FCC sticker look like?



Not all FCC stickers look like this, some will look different.

Q. Why does the sticker *not* guarantee an RFI compliant device?

A. Importers have been known to counterfeit these stickers!

Q. What will we advise the user to do if we believe we have located an RFI generating device?

A. We will ask that the user of any RFI generating equipment cease use of that equipment immediately, or find a way to remove the RFI component. We will further advise the user of RFI generating equipment to return the device, or devices to the vendor, and request a refund.

Q. Could I, as the seller be involved in a recall of RFI generating devices:

A. Yes, in the event a recall is issued, the seller could be asked to recover all sold devices.

Where can I get more information about RFI?

The Valley Radio Club of Oregon:

<http://www.valleyradioclub.org/rfi.html>

Filters for RFI:

<http://www.morganmfg.us/radio-products/ac-line-filters-protectors/>

http://www.w0qe.com/RF_Interference/grow_light_electronic_ballasts.html

<http://www.galaxyballasts.com/products/grow-amp-ballast-series/1000-w-select-a-watt-turbo-charge.aspx>

<http://growershouse.com/nanolux-rf-filter-set-reduce-rf-interference>

<https://www.hydrofarm.com/p/BAF2020>

The American Radio Relay League:

<http://www.arrl.org/news/colorado-ham-tracks-down-resolves-interference-from-pot-cultivators-grow-lights>

<http://www.arrl.org/radio-frequency-interference-rfi>

<http://www.arrl.org/regulatory-rfi-information>

<http://www.arrl.org/fcc-rfi-information>

<http://www.arrl.org/grow-light-rfi>

<http://www.arrl.org/news/arrl-to-fcc-grow-light-ballast-causes-hf-interference-violates-rules>

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The Valley Radio Club thanks you for looking at this handout

We at the Valley Radio Club would like to thank you for taking the time out to look at this handout.

The Valley Radio Club's web page will cover most of what is covered in this handout, and allow you to further evaluate your options with regards to RFI problems.

This handout is part of a program sponsored by the Valley Radio Club to attempt to solve these sorts of problems at a local level in order to avoid possible Federal enforcement actions. Feel free to join us at one of our monthly meetings of the Valley Radio Club and visit with some of the Amateur Radio Operators in your area and discuss this important issue with us.

Please visit our web site at:

<http://www.valleyradioclub.org/rfi.html>

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ALWAYS CONSULT A QUALIFIED PROFESSIONAL BEFORE MAKING ANY CHANGES TO AN ELECTRICAL DEVICE.

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